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LEE & HAYES PLLC
421 W RIVERSIDE AVENUE SUITE 500
SPOKANE, WA 99201

EXAMINER
ALI, SYED J

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2127	6

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/608,397	KABIR ET AL.	
	Examiner	Art Unit	
	Syed J Ali	2127	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 June 2000* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-35* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-25 and 27-35* is/are rejected.

7)☒ Claim(s) *26* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 17, 31, and 33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 17 recites the limitations "the current network connection" and "the new network connection" in lines 2 and 3, respectively. There is insufficient antecedent basis for these limitations in the claim.

Claim 31 recites the limitations "the first identity" and "the second identity" in line 9. There is insufficient antecedent basis for these limitations in the claim.

Claim 33 recites the limitations "the first identity" in lines 4. There is insufficient antecedent basis for these limitations in the claim.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-10, 13-15, 17-18, and 31-35 are rejected under 35 U.S.C. 102(b) as being anticipated by Smith (USPN 5,835,724).

As per claim 1, Smith discloses a method, comprising:

receiving a request to switch from a current network context to a new network context (col. 3 lines 29-49, "System 10 maintains session data 32 in memory 28 during the session to allow client 12 to access, after the connection between client 12 and session server 24 terminates and client 12 establishes another connection with server 24 during the session"); and

switching from the current network context to the new network context without process shutdown (col. 3 lines 29-49, "Client 12 need not again navigate the entire hierarchy of states to reaccess session data 32 or generate new session data 32").

As per claim 2, Smith discloses the method as recited in claim 1, wherein process shutdown includes terminating a user session utilizing the current network context and logging into a user session utilizing the new network context (System 10 maintains session data 32 in memory 28 during the session to allow client 12 to access, after the connection between client 12 and session server 24 terminates and client 12 establishes another connection with server 24 during the session, session data 32 associated with one or more states client 12 progressed through after establishing a previous connection with session server 24", wherein the session termination is circumvented by saving session information, thereby avoiding process shutdown in accordance with claim 1).

As per claim 3, Smith discloses the method as recited in claim 1, wherein the current network context includes web page data specific to a user (col. 3 lines 3-15, "a client establishes a connection with a server associated with an Internet site", "In interacting with the server to obtain information, the client navigates a hierarchy of documents or pages"), and wherein the web page data is stored in a memory location based on a hash of a universal resource locator [URL] for the web page (col. 4 lines 8-41, "For each client that establishes a connection with session server 24 to obtain information from data source 26, session server 24...stores session data 32 in memory 28 according to the session identifier, and maintains session data 32 in memory 28 during the session", "Memory 28 may include one or more databases, files, or other data repositories", wherein databases can be organized any number of ways, and the use of hash tables and hashing functions are well known in the art, and wherein Smith further discloses the use of a hash table corresponding to saving state information in col. 10 lines 27-42).

As per claim 4, Smith discloses the method as recited in claim 1, wherein:

the current network context is associated with a current globally unique user identifier [guid] (col. 4 lines 8-33, "For each client 12 that establishes a connection with session server 24 to obtain information from data source 26, session server 24...assigns a unique session identifier to the session");

the receiving a request to switch from the current network context to a new network context further comprises receiving a new guid with a request to switch to a new network context associated with the new guid (col. 4 lines 42-62, "For each client 12 that establishes a connection

with session server 24, session server 24 initiates a separate session and communications server 22 spawns or otherwise generates a separate CGI 102 to communicate with client 12 during at least one connection during the session"); and

the switching from the current network context further comprises switching from the current network context to a new network context that is associated with the new guid (col. 10 lines 27-42, "Session server 24 includes a session manager mapping file 110 that relates the unique session identifier [SID] for each session to a session manager identifier [MID] corresponding to a particular session manager").

As per claim 5, Smith discloses the method as recited in claim 4, wherein the switching further comprises:

setting one or more global pointers to reference one or more directories uniquely associated with the new guid (col. 8 lines 25-39, "state data stack 150 may contain session data 32 for states 52, 54, and 56, as indicated by arrows 156, 157, and 158, respectively, that have associated pages to convey home page information").

As per claim 6, Smith discloses the method as recited in claim 5, wherein the new network context includes shared web page data (col. 3 lines 3-15, "a client establishes a connection with a server associated with an Internet site", "In interacting with the server to obtain information, the client navigates a hierarchy of documents or pages"), and wherein the web page data is stored in a location based on a hash of a universal resource locator [URL] for the web page (col. 4 lines 8-41, "For each client that establishes a connection with session server

24 to obtain information from data source 26, session server 24...stores session data 32 in memory 28 according to the session identifier, and maintains session data 32 in memory 28 during the session", "Memory 28 may include one or more databases, files, or other data repositories", wherein databases can be organized any number of ways, and the use of hash tables and hashing functions are well known in the art, and wherein Smith further discloses the use of a hash table corresponding to saving state information in col. 10 lines 27-42).

As per claim 7, Smith discloses the method as recited in claim 5, wherein the new network context includes web page data specific to a user (col. 3 lines 3-15, "a client establishes a connection with a server associated with an Internet site", "In interacting with the server to obtain information, the client navigates a hierarchy of documents or pages"), and wherein the web page data is stored in a location based on a hash of a combination of the new guid and a universal resource locator [URL] for the web page (col. 8 lines 25-40, "for each state client 12 enters or progresses through during the session, session server 24 dynamically generates session data 32, assigns a unique state identifier to session data 32, and stores session data 32 separately in state data stack 150 according to a state identifier for the state", col. 10 lines 27-42, "Session server 24 includes a session manager mapping file 110 that relates the unique identifier [SID] for each session to a session manager identifier [MID] corresponding to a particular session manager", wherein the data is located based on locating the state data based on the identifier of the session, as well as the identifier of the state data, i.e., web page data that is sought to be retrieved).

As per claim 8, Smith discloses the method as recited in claim 4, wherein the switching to a new network context further comprises:

storing the current network context in a directory uniquely associated with the current guid (col. 10 lines 27-42, "Session server 24 includes a session manager mapping file 110 that relates the unique identifier [SID] for each session to a session manager identifier [MID] corresponding to a particular session manager", wherein each network context is mapped on a one-to-one basis within the mapping file).

As per claim 9, Smith discloses the method as recited in claim 1, wherein the current network context is a current Internet context and the new network context is a new Internet context (col. 3 lines 3-15, "In client-server environments such as the Internet, a client establishes a connection with a server associated with an Internet site, the client interacts with the server to obtain selected information, and the connection with the server is terminated after the client obtains the selected information").

As per claim 10, Smith discloses the method as recite in claim 1, further comprising:

determining if the new network context is valid (col. 5 lines 18-32, "communications server 22 may encrypt session data 32 and other information received from session server 24 to provide secure communications", wherein the verification of an identity is one way of ensuring that the new network context is valid); and

switching network contexts only if the new network context is valid (see above citation, wherein if session data does not pass the encryption verification, the session server will deny access, thereby providing secure communication as intended).

As per claim 13, Smith discloses the method as recited in claim 1, wherein a network context comprises a set of objects, one object for each network state (col. 5 lines 1-17, "programmer 30 may customize session server 24 using an object-oriented programming language", "In one embodiment, the classes correspond to particular states or associated pages through which client 12 progresses in navigating the state hierarchy wholly or partially defined by the API").

As per claim 14, Smith discloses the method as recited in claim 1, wherein a network context is an Internet context that comprises a set of objects, one object for each Internet state (col. 5 lines 1-17, "programmer 30 may customize session server 24 using an object-oriented programming language", "In one embodiment, the classes correspond to particular states or associated pages through which client 12 progresses in navigating the state hierarchy wholly or partially defined by the API", and wherein the entirety of the disclosure is conveyed in the spirit of an Internet context, as is suggested by the title "System and Method for Communication Information Using the Internet...").

As per claim 15, Smith discloses the method as recited in claim 14, wherein the set of objects is comprised of one or more of the following types of objects: cookies, history, Internet

content, or user-defined data (col. 5 lines 1-17, "In one embodiment, the classes correspond to particular states or associated pages through which client 12 progresses in navigating the state hierarchy wholly or partially defined by the API", wherein the particular embodiment referred to is related to Internet content, particularly each state the navigation progresses through, but may be adapted to serve alternate uses associated with Internet usage associated with personalization, such as cookies, history, etc.).

As per claim 17, Smith discloses the method as recited in claim 1, wherein:

the current network connection is an Internet connection (col. 3 lines 3-15, "a client establishes a connection with a server associated with an Internet site");

the new network connection is an Internet connection (see citation above, wherein the disclosure pertains to saving state information regarding a session while establishing a new connection or session);

the current network context is an Internet context that includes current web page content (col. 3 liens 3-15, "the client navigates a hierarchy of documents or pages");

the new network context is an Internet context that includes new web page content (col. 3 lines 30-49, "System 10 maintains session data 32 in memory 28 during the session to allow client 12 to access, after the connection between client 12 and session server 24 terminates and client 12 establishes another connection with server 24 during the session, session data 32 associated with one or more states client 12 progressed through after establishing a previous connection with the session server");

the method further comprises:

storing the current web page content (col. 3 lines 30-49, "System 10 maintains session data 32 in memory 28 during the session");

setting one or more global pointers to reference the new web page content (col. 8 lines 25-39, "state data stack 150 may contain session data 32 for states 52, 54, and 56, as indicated by arrows 156, 157, and 158, respectively, that have associated pages to convey home page information", wherein the new web page content is addressed by the assigning of state identifiers and session data associated with each web page that is accessed); and

the switching further comprises:

utilizing the referenced new page content for further processing (col. 8 lines 25-39, "As client 12 navigates state hierarchy 50, session server 24 generates new session data 32 and pushes, adds, or otherwise stores session data 32 in state data stack 150 each time client 12 progresses forward from a current state to a child state").

As per claim 18, Smith discloses the method as recited in claim 17, wherein setting one or more global pointers to reference the new web page content further comprises:

hashing a universal resource locator (URL) of a web page from which the web page content is derived (col. 4 lines 8-41, "For each client that establishes a connection with session server 24 to obtain information from data source 26, session server 24...stores session data 32 in memory 28 according to the session identifier, and maintains session data 32 in memory 28 during the session", "Memory 28 may include one or more databases, files, or other data repositories", wherein databases can be organized any number of ways, and the use of hash

tables and hashing functions are well known in the art, and wherein Smith further discloses the use of a hash table corresponding to saving state information in col. 10 lines 27-42); and

setting one or more global pointers to the new web page content in a memory location associated with the hash value derived from hashing the URL (col. 8 lines 25-49, "for each state client 12 enters or progresses through during the session, session server 24 dynamically generates session data 32, assigns a unique state identifier to session data 32, and stores session data 32 separately in state data stack 150 according to a state identifier", wherein the storing of session data according to a unique identifier is in essence storing session data according to a hashing function).

As per claim 31, Smith discloses a computer system comprising:

a registry that includes one or more global pointer that reference one or more containers that store a first Internet context and a second Internet context ((col. 10 lines 27-42, "Session server 24 includes a session manager mapping file 110 that relates the unique session identifier [SID] for each session to a session manager identifier [MID] corresponding to a particular session manager");

an Internet management component that associates a first identifier with the first Internet context and a second identifier with the second Internet context (col. 10 lines 27-42, "mapping file 110 may indicate that a session manager 112 having an MID of '1' is handling the session having an SID of '1', and a session manager 112 having an MID of '3' is handling the session having an SID of '3'");

wherein the Internet management component is configured to halt processing of the first Internet context and initialize processing by the second Internet context without shutting down other processes when it receives a request to switch from the first identity to the second identity (col. 3 lines 29-49, "System 10 maintains session data 32 in memory 28 during the session to allow client 12 to access, after the connection between client 12 and session server 24 terminates and client 12 establishes another connection with server 24 during the session", "Client 12 need not again navigate the entire hierarchy of states to reaccess session data 32 or generate new session data 32").

As per claim 32, Smith discloses the computer system as recited in claim 31, wherein:

the first Internet context includes first Internet content from a first web page having a first universal resource locator [URL] (col. 3 lines 3-15, "a client establishes a connection with a server associated with an Internet site", "In interacting with the server to obtain information, the client navigates a hierarchy of documents or pages");

one of the global pointers references a first memory location derived by hashing the first URL (col. 4 lines 8-41, "For each client that establishes a connection with session server 24 to obtain information from data source 26, session server 24...stores session data 32 in memory 28 according to the session identifier, and maintains session data 32 in memory 28 during the session", "Memory 28 may include one or more databases, files, or other data repositories", wherein databases can be organized any number of ways, and the use of hash tables and hashing functions are well known in the art, and wherein Smith further discloses the use of a hash table corresponding to saving state information in col. 10 lines 27-42); and

the Internet management component is further configured to store the first Internet context data in a container referenced by the global pointer that references the first memory location (col. 10 lines 27-42, "mapping file 110 may indicate that a session manager 112 having an MID of '1' is handling the session having an SID of '1', and a session manager 112 having an MID of '3' is handling the session having an SID of '3'", wherein the mapping file indicates the container within memory that stores the session data).

As per claim 33, Smith discloses the computer system as recited in claim 31, wherein:

the first Internet context includes first Internet content from a first web page having a first universal resource locator [URL] (col. 3 lines 3-15, "a client establishes a connection with a server associated with an Internet site", "In interacting with the server to obtain information, the client navigates a hierarchy of documents or pages");

the first identity is associated with a unique value (col. 4 lines 8-33, "For each client 12 that establishes a connection with session server 24 to obtain information from data source 26, session server 24...assigns a unique session identifier to the session");

one of the global pointers references a first identity memory location derived by hashing the first URL (col. 4 lines 8-41, "For each client that establishes a connection with session server 24 to obtain information from data source 26, session server 24...stores session data 32 in memory 28 according to the session identifier, and maintains session data 32 in memory 28 during the session", "Memory 28 may include one or more databases, files, or other data repositories", wherein databases can be organized any number of ways, and the use of hash

tables and hashing functions are well known in the art, and wherein Smith further discloses the use of a hash table corresponding to saving state information in col. 10 lines 27-42); and

the Internet management component is further configured to store the first Internet context data in a container referenced by the global pointer that references the first identity memory location (col. 10 lines 27-42, "mapping file 110 may indicate that a session manager 112 having an MID of '1' is handling the session having an SID of '1', and a session manager 112 having an MID of '3' is handling the session having an SID of '3'", wherein the mapping file indicates the container within memory that stores the session data).

As per claims 34-35, they are rejected for similar reasons as stated for claims 32-33 above, respectively. Specifically, Smith discusses at length how data is stored within memory for each distinct session, and this is done in a similar fashion for each session. Smith stores data associated with web pages in memory according to a hash table (col. 10 lines 27-42), which utilizes a unique session identifier to indicate the location within the hash table (mapping file). Furthermore, Smith indicates that the web pages associated with a session are stored in a database, and many techniques are well known for the organization of a database. Hash tables are often used in databases since data can be referenced by inputting a key into a hashing function, thereby significantly reducing search time.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Smith in view of Shoji et al. (USPN 5,764,908) (hereinafter Shoji)

As per claim 11, Shoji discloses the following limitations not specifically shown by Smith, specifically the method as recited in claim 1, wherein switching network contexts further comprises switching universal resource locator (URL) cache components from current URL cache components to new URL cache components (col. 5 lines 48-67, wherein several methods of updating cache such that the most current web page content is delivered to the user are disclosed).

It would have been obvious to one of ordinary skill in the art to combine Smith and Shoji since web page content is dynamically updated to the point that frequent updates are necessary simply to make browsing the Internet feasible. Specifically, web pages pertaining to news, sports, financial information, etc. are typically used in real-time, such that using cached URLs may prove to be ineffectual. By frequently updating the URLs stored in cache, up-to-the-minute information is delivered to the user, thereby making browsing more effective.

7. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Smith in view of Anderson et al. (USPN 6,219,042) (hereinafter Anderson).

As per claim 12, Anderson discloses the following limitations not specifically not shown by Smith, specifically the method as recited in claim 1, wherein the new network context is a default network context (Abstract, "If the first and second periods have elapsed, the terminal automatically reestablishes communication and selects a default Internet state").

It would have been obvious to one of ordinary skill in the art to combine Smith and Anderson since the establishing of a default Internet state would allow the network session to continue regardless of what previous parameters existed. Thereafter, the session data that was stored previous to the session termination could be loaded. This would allow network communication to continue as desired. If, on the other hand, the switch in contexts was in response to a switch in users, it may be desirable to load a clean network context, wherein loading a default context would allow browsing that is unaffected by session data of a previous user.

8. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Smith in view of Shoji in view of Melbin (USPN 6,397,217).

As per claim 16, Shoji discloses the following limitations not specifically shown by Smith, specifically the method as recited in claim 1, wherein:

the network context comprises cache components (col. 5 lines 23-44, "In the preferred embodiment of the present invention, a URL cache is included");

the switching further comprises:

flushing data [uniquely] associated with the current network context (col. 5 lines 48-67, "The first method is to allow a user to clear all entries in the cache", wherein the term uniquely is bracketed out since Shoji does not specifically refer to clearing out cache that is uniquely associated with a current network context, but this will be addressed below).

The motivation for combining Smith and Shoji is provided above in reference to claim 11. That is, the reasons for combining Smith and Shoji presented in the discussion of claim 11 are pertinent to what is discussed in the present claim.

Melbin discloses the following limitations not specifically shown by the modified Smith, specifically, having a cache components uniquely associated with the current network context (col. 3 lines 40-46, "page data can be screened before serving this and different versions of the same cache page may be returned based upon...user-specific environment variables");

shutting down cache components of the current network context to prevent operations utilizing the cache components (see above citation, wherein the organization of cache into a hierarchical system wherein cache components are user-specific allows certain cache pages to be activated depending on the present user context); and

creating a set of cache components for the new network context (col. 3 lines 40-46, "different versions of the same cache page may be returned based upon the context criteria).

It would have been obvious to one of ordinary skill in the art to add Melbin to the modified Smith since customizing cache components such that cache pages may be user specific would allow a change in user contexts while maintaining an active session, and preventing data conflicts. Furthermore, it allows separate contexts to be maintained for separate users, thereby

allowing multiple users to use a single machine. This provides the added benefit of having session data stored not only for a terminated session, but also for a suspended session, such as if one user logs off as another logs on, while also maintaining each user's specific variables and data.

"Official Notice" is taken that resetting a session start time to begin a new session is well known and expected in the art. Specifically, associating a specific start time to a session is widely employed in the art as a way of indicating that a session has started. It would have been obvious to one of ordinary skill in the art to include resetting a session start time to begin a new session with the modified Smith since it would allow a way of tracking what particular session data exists within the current context by simply backtracking to the last reset time. To that end, cache updates could be performed with greater accuracy, thereby making the system more efficient.

9. Claims 19-23, 25, 27-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith in view of Melbin.

As per claim 19, Smith discloses the method as recited in claim 18, wherein the setting one or more global pointers further comprises:

determining a globally unique identifier [guid] associated with the new Internet context (col. 10 lines 27-42, "Session server 24 includes a session manager mapping file 110 that relates the unique session identifier [SID] for each session to a session manager identifier [MID] corresponding to a particular session manager");

determining a value associated with the guid (col. 10 lines 27-42, "mapping file 110 may indicate that a session manager 112 having an MID of '1' is handling the session having an SID of '1'");

hashing a combination of the URL and the value associated with the guid ("Session server 24 includes a session manager mapping file 110 that relates the unique session identifier [SID] for each session to a session manager identifier [MID] corresponding to a particular session manager");

setting the one or more global pointers to the new web page content in a memory location associated with the hash value derived from hashing the combination of the URL and the value associated with the guid (col. 8 lines 25-49, "for each state client 12 enters or progresses through during the session, session server 24 dynamically generates session data 32, assigns a unique state identifier to session data 32, and stores session data 32 separately in state data stack 150 according to a state identifier", wherein the storing of session data according to a unique identifier is in essence storing session data according to a hashing function).

Melbin discloses the following limitations not shown by Smith, specifically identifying the new web page content as being user-specific (col. 3 lines 40-46, "page data can be screened before serving this and different versions of the same cache page may be returned based upon...user-specific environment variables").

It would have been obvious to one of ordinary skill in the art to combine Smith and Melbin since customizing cache components such that cache pages may be user specific would allow a change in user contexts while maintaining an active session, and preventing data conflicts. Furthermore, it allows separate contexts to be maintained for separate users, thereby

allowing multiple users to use a single machine. This provides the added benefit of having session data stored not only for a terminated session, but also for a suspended session, such as if one user logs off as another logs on, while also maintaining each user's specific variables and data.

As per claim 20, Smith discloses the method as recited in claim 19, wherein the value associated with the guid is an ordinal (col. 10 lines 27-42, "mapping file 110 may indicate that a session manager 112 having an MID of '1' is handling the session having an SID of '1'", wherein the ordinal value of "1" in this case refers to the specific guid of the session).

As per claim 21, Smith discloses a computer-readable medium having computer-executable instructions that, when executed by a computer, perform the following steps:

receiving a request to switch from a first Internet context to a second Internet context (col. 3 lines 29-49, "System 10 maintains session data 32 in memory 28 during the session to allow client 12 to access, after the connection between client 12 and session server 24 terminates and client 12 establishes another connection with server 24 during the session");

halting operations utilizing the first Internet context (col. 3 lines 29-49, "the connection between client 12 and session server 24 terminates and client 12 establishes another connection with server 24");

initializing operations utilizing the second Internet context without requiring process shutdown (col. 3 lines 29-49, "Client 12 need not again navigate the entire hierarchy of states to reaccess session data 32 or generate new session data").

Melbin discloses the following limitations not specifically shown by Smith, specifically that the first and second Internet contexts are associated with a first and second identity, respectively (col. 3 lines 40-47, "page data can be screened before serving this and different versions of the same cache page may be returned based upon the context criteria, such as...user-specific environment-variables", wherein each context may have its own local and global values and criteria, and these are discernable by users).

The motivation for combining Smith and Melbin is provided above in reference to claim 19.

As per claim 22, Smith discloses the computer-readable medium as recited in claim 21, wherein the halting operations utilizing the first Internet context includes storing first Internet context data in one or more containers associated with the first identity (col. 4 lines 8-33, "For each client 12 that establishes a connection with session server 24 to obtain information from data source 26, session server 24 initiates a communications session, assigns a unique session identifier to the session, generates session data 32 for the session, stores session data 32 in memory 28 according to the session identifier, and maintains session data 32 in memory 28 during the session", wherein when thought of in combination with Melbin, the assigning of an identifier associated with the session data could also associate the data with a user id or some other identification of a specific user).

As per claim 23, Smith discloses the computer-readable medium as recited in claim 21, wherein the initializing operations utilizing the second identity includes setting one or more

global pointers to Internet context data associated with the second identity that is stored in one or more containers associated with the second identity (col. 10 lines 27-42, "Session server 24 includes a session manager mapping file 110 that relates the unique session identifier [SID] for each session to a session manager identifier [MID] corresponding to a particular session manager", wherein when the second Internet context is loaded, global pointers are redirected in accordance with the mapping file).

As per claim 25, Smith discloses an Internet management object stored on a computer-readable medium, comprising computer-executable instructions that, when executed on a computer, perform the following steps:

receiving a request to switch from a first Internet context to a second Internet context (col. 3 lines 29-49, "System 10 maintains session data 32 in memory 28 during the session to allow client 12 to access, after the connection between client 12 and session server 24 terminates and client 12 establishes another connection with server 24 during the session");

storing the first Internet context in one or more containers associated with the first identity (col. 4 lines 8-33, "For each client 12 that establishes a connection with session server 24 to obtain information from data source 26, session server 24 initiates a communications session, assigns a unique session identifier to the session, generates session data 32 for the session, stores session data 32 in memory 28 according to the session identifier, and maintains session data 32 in memory 28 during the session", wherein when thought of in combination with Melbin, the assigning of an identifier associated with the session data could also associate the data with a user id or some other identification of a specific user);

setting one or more global pointers to reference the second Internet context located in one or more containers without requiring open processes to shut down (col. 10 lines 27-42, "Session server 24 includes a session manager mapping file 110 that relates the unique session identifier [SID] for each session to a session manager identifier [MID] corresponding to a particular session manager", wherein when the second Internet context is loaded, global pointers are redirected in accordance with the mapping file).

Melbin discloses the following limitations not specifically shown by Smith, specifically that the first and second Internet contexts are associated with a first and second identity, respectively (col. 3 lines 40-47, "page data can be screened before serving this and different versions of the same cache page may be returned based upon the context criteria, such as...user-specific environment-variables", wherein each context may have its own local and global values and criteria, and these are discernable by users).

The motivation for combining Smith and Melbin is provided above in reference to claim 19.

As per claim 27, Smith discloses the Internet management object as recited in claim 25, wherein the first Internet context further includes first Internet content stored in a memory location and identified in an index record, the index record being identified according to a hash value of a URL associated with the first Internet content (col. 4 lines 8-41, "For each client that establishes a connection with session server 24 to obtain information from data source 26, session server 24...stores session data 32 in memory 28 according to the session identifier, and maintains session data 32 in memory 28 during the session", "Memory 28 may include one or

more databases, files, or other data repositories", wherein databases can be organized any number of ways, and the use of hash tables and hashing functions are well known in the art, and wherein Smith further discloses the use of a hash table corresponding to saving state information in col. 10 lines 27-42).

As per claim 28, Smith discloses the Internet management object as recited in claim 27, wherein the first Internet content is shared content (col. 10 lines 27-42, wherein the mapping file could easily specify the session data to be shareable between multiple contexts by indicating that multiple sessions are able to access the data from a particular session manager).

As per claim 29, Smith discloses the Internet content management object as recited in claim 25, wherein the first Internet context includes first Internet content stored in a memory location and identified in an index record, the index record being identified according to a hash value of a URL associated with the first Internet content and a value uniquely associated with the first identity (col. 8 lines 25-40, "for each state client 12 enters or progresses through during the session, session server 24 dynamically generates session data 32, assigns a unique state identifier to session data 32, and stores session data 32 separately in state data stack 150 according to a state identifier for the state", col. 10 lines 27-42, "Session server 24 includes a session manager mapping file 110 that relates the unique identifier [SID] for each session to a session manager identifier [MID] corresponding to a particular session manager", wherein the data is located based on locating the state data based on the identifier of the session, as well as the identifier of the state data, i.e., web page data that is sought to be retrieved).

As per claim 30, Melbin discloses the Internet management object as recited in claim 29, wherein the first Internet content is user-specific content (col. 3 lines 40-46, "page data can be screened before serving this and different versions of the same cache page may be returned based upon...user-specific environment variables").

10. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Smith in view of Melbin in view of Anderson.

As per claim 24, Anderson discloses the following limitation not shown by the modified Smith, specifically the computer-readable medium as recited in claim 21, wherein the initializing operations utilizing the second identity includes setting one or more global pointers to reference default Internet context data and associating the Internet context data with the second identity (Abstract, "If the first and second periods have elapsed, the terminal automatically reestablishes communication and selects a default Internet state").

It would have been obvious to one of ordinary skill in the art to combine Smith and Anderson since the establishing of a default Internet state would allow the network session to continue regardless of what previous parameters existed. Thereafter, the session data that was stored previous to the session termination could be loaded. This would allow network communication to continue as desired. If, on the other hand, the switch in contexts was in response to a switch in users, it may be desirable to load a clean network context, wherein

loading a default context would allow browsing that is unaffected by session data of a previous user.

Claim Objections

11. Claim 25 recites the limitation "a second Internet context associated with a second Internet context". This limitation is redundant and appears to be a typographical error. For purposes of examining this claim, it will be assumed that it is meant to read, "a second Internet context associated with a second identity".

12. Claim 26 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Syed J Ali whose telephone number is (703) 305-8106. The examiner can normally be reached on Mon-Fri 8-5:30, 2nd Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William A Grant can be reached on (703) 308-1108. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Syed Ali
August 19, 2003

MAJID A. BANANKHAH
PRIMARY EXAMINER